


Adolescent Development
48.212
Dr. Jeffrey Leitzel

Introductory Overview


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Multidisciplinary Approach

- Draws upon multiple disciplines
 - Six primary disciplines, which are?
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
- Goal: Integration into a coherent picture of adolescent development

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Boundaries of Adolescence

- Roughly defined as (ages)?
- Other ways of defining boundaries?

- Series of passages from immaturity to maturity – boundaries can be inconsistent
- Early, middle, late phases

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● ● ● | Framework of course/text

- Three general components
 - Fundamental Changes
 - Contexts
 - Psychosocial Development
- None of these exist in isolation
- Interactions within and between components

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● ● ● | Fundamental Changes

- Biological
- Cognitive
- Social transitions

- These changes are universal

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● ● ● | Contexts

- Great variability over time

- Family
- Peer group
- School
- Work and leisure settings and media utilization

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Psychosocial Development

- o Identity
- o Autonomy – will not cover
- o Intimacy
- o Sexuality
- o Achievement – will not cover
- o Psychosocial problems

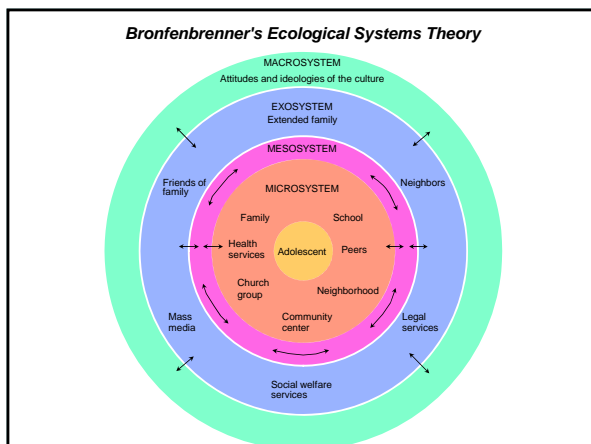
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Theoretical perspectives

- o Biological
- o Organismic
- o Learning
- o Sociological
- o Historical and Anthropological

- o Combination perspective – systems theory – Urie Bronfenbrenner

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Scientific study

- Many of our ideas about adolescents based on stereotypes
- Scientific evidence often not consistent with our “common sense”
- Will always be exceptions to general patterns we describe, where they exist at all
- Adolescent development highly variable

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Adolescence

Chapter 1: Biological Transitions

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Outline/overview

- Puberty
 - hormones
 - bodily changes
 - individual and group differences
 - early vs. late maturation
- Eating disorders
- Physical health & Health care

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● ● ● | Puberty: Three Chief Physical Manifestations

- Growth spurt
- Primary sex characteristics - development of the gonads
- Development of secondary sex characteristics – genital and breast development, pubic, facial, and body hair

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● ● ● | Puberty Affected by Context

- Timing of physical changes in adolescence varies by
 - Regions of the world
 - Socioeconomic class
 - Ethnic group
 - Historical era
- Example: Menarche (first menstruation)
 - U.S. average 12 to 13 years
 - Lumi (New Guinea) average > 18 years

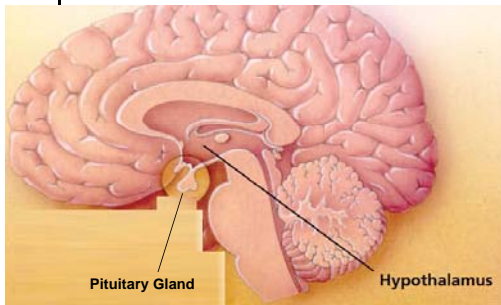
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● ● ● | Puberty: An Overview

- The Endocrine System
 - No new hormones are produced and no new bodily systems develop at puberty
 - A feedback loop develops involving the
 - Hypothalamus
 - Pituitary gland
 - Gonads
- Some evidence that rising levels of leptin may be the root trigger for the process

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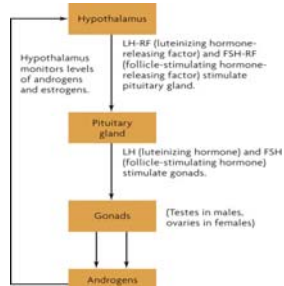
Hypothalamus & Pituitary



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The Endocrine System: HPG Feedback Loop

- HPG Axis:
 - Hypothalamus
 - Pituitary gland (master gland)
 - Gonads (testes and ovaries)
- Gonads release sex hormones into bloodstream
 - Androgens and estrogens



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Roles Played by Hormones

- Organizational Role
 - Prenatally hormones “program” the brain
 - Patterns of behavior due to this organization may not appear until adolescence
example: aggression
- Activational Role
 - Increase in certain hormones activates changes
example: secondary sex characteristics

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● ● ● | Somatic Development:
Changes in Stature/ Dimensions
of the Body

- Adolescent growth spurt
 - Simultaneous release of growth hormones, thyroid hormones, and androgens
- Peak Height Velocity
 - Time that adolescent is growing most quickly
- Average female growth spurt is 2 years before the average male growth spurt

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● ● ● | Somatic Development:
Changes in Stature/
Dimensions of the Body

- Skeletal changes
 - Bones become harder, denser, more brittle
 - Conclusion of puberty
 - Closing of ends of long bones
 - Growth in height is terminated
- Relative proportions of body fat/muscle change for boys and for girls
- Changes in the circulatory & respiratory systems

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● ● ● | Individual Differences in
Pubertal Maturation

- Pubertal maturation
 - an interaction between genes and environment
 - Differences in timing/rate among individuals in the same general environment result chiefly from genetic factors
 - Two key environmental influences: nutrition and health
 - Exposure to pheromes

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● ● ● | **Group Differences in Pubertal Maturation**

- Three group comparisons of average age of menarche
 - Across countries
 - Among SES groups within a country
 - Within same populations but different eras
 - Secular trend – due to improved nutrition, better sanitation, better control of infectious diseases

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● ● ● | **Group Differences in Pubertal Maturation**

- Secular trend
 - Leveling off in industrialized nations
 - U.S. average age of menarche has not changed in 30 years
 - Onset of puberty has continued to occur earlier among African American girls in the U. S.

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● ● ● | **Psychological/Social: Early or Late Maturation**

- *Perception* of being an early or late maturer is more important in affecting one's feelings than the reality
- Early maturation *does* bring social advantages, for boys more problematic for girls overall
- But early maturation is associated with
 - More drug and alcohol use
 - Precocious sexual activity
- Context is important to consider

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Eating Disorders

- Basal Metabolism Rate
 - The minimal amount of energy one uses when resting
- Obesity
 - The most common eating disorder among adolescents
- Disordered eating
 - Patterns of eating attitudes and behaviors that are unhealthy.
- Deviation from the “ideal” physique can lead to loss of self-esteem and other problems in the adolescent’s self-image

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Eating Disorders

- Studies of magazines, 1970 to 1990
 - Ideal body shape became slimmer
 - Ideal body shape became less curvaceous
- Adolescents with these eating disorders have an extremely disturbed body image.
- Bulimia
 - Eating binges; force themselves to vomit
 - 3% of adolescents are genuine bulimics
- Anorexia
 - Starve themselves to keep weight down
 - Fewer than 1/2 of 1% of adolescents
- Theoretical perspectives

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Physical Health and Health Care in Adolescence

- One of the healthiest periods of the lifespan
- Threat to health: Psychosocial Causes (not natural causes)
- Reducing health compromising behaviors
- Increasing health enhancing behaviors – especially among poor & minority populations
- Increasing access to healthcare among the poor, very important goal

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Physical Health and Health Care in Adolescence

- PARADOX: Healthy period of lifespan
- But nearly 1 in 15 adolescents has at least one disabling chronic illness
 - such as mental disorders (depression)
 - respiratory illnesses (asthma)
 - muscular and skeletal disorders (arthritis)

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Adolescent Mortality

- 45% of teen deaths
 - Car accidents
 - Other unintentional injuries
- 30% of teen deaths
 - Homicide and [suicide](#)
- 50 years ago, most deaths due to illness/disease



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